



The Actuary

The Newsletter of the Society of Actuaries

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EXPENSES AND MANAGEMENT

by Ardian C. Gill

With a superabundance of inflation-driven forces threatening the life insurance industry, the problem of expense control sometimes seems an artifact of an earlier era. Yet, after assembling and studying data on expenses of ordinary life insurance, I am persuaded that the subject needs current and constant attention because (a) if ignored, a small expense problem will almost inevitably rise to major significance, and (b) expense control is a measure of the effectiveness of management in difficult times.

This second point deserves elaboration. In an expanding market, said Hamermesh and Silk, *Harvard Business Review*, March 1979, a high-expense, high-profit operation is possible, but in a stagnant or declining market (such as characterizes individual life insurance today) efficient manufacturing and distribution are essential for continued profitable operations. A company's ability to produce a life insurance product at competitive cost is clearly related to its level of expenses; hence any index that measures a company's expense level and trends has particular value in a non-expanding market as a measure of its ability to manage.

The difficulty of measuring management effectiveness is compounded in the life insurance industry because of product complexity and inconsistencies in accounting practices which render the usual earnings per share figure invalid for mutual companies and at least suspect for stock companies; thus some other index is needed.

Expense Studies in Canada

Beginning with Arthur Pedoe's work (*T.S.A.* XIII (1961), 1), various formulae have been employed in Canada to measure expense trends and levels.

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A cordial welcome to our newest Associate Editor, Deborah Adler Poppel, F.S.A. 1980. Deborah's first contribution to our columns was "Ode to A Part Three Student," April 1979 issue.

WHO ARE THE NEW FELLOWS?

by Deborah Adler Poppel,
Associate Editor

The quintessential new fellow is a 28 year old married man who has been taking exams for 6½ years. At least, according to the respondents to a questionnaire prepared by Benjamin N. Woodson, Fred A. Deering, and Thomas P. Bowles, Jr. for presentation at this past spring's New Fellows luncheons. The questionnaire was sent to all who had reached fellowship in May or November of 1981, and about 160 (60%) responded.

The demographic data, however, was less interesting than the response to subjective questions. The majority of respondents were bullish on the actuarial career, feeling that it offers job satisfaction, economic rewards, and challenge. Most would encourage others to enter the field, but some specified "clear caveats regarding difficulty of achieving success."

But reaction to the industry in general was much less favorable. Only 25% feel that the short range (5-7 years) future of the industry is "Bright", with 15% calling it "Dim", and the balance "In-between." Interestingly, they felt the long range (10-15 years) prospects to be better—45% "Bright" and only 2% "Dim."

When asked if the industry provides any disservices, a startling 50% gave marketing-related answers, ranging from "overzealous agents" to "failure to educate the public" to "toleration of

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FINAL-SALARY PENSIONS IN THE U.K.

by Kenneth G. Buffin

"Valuation of Final-Salary Pension Schemes," a paper by R. B. Colbran, F.I.A. submitted to the Institute of Actuaries in London last April, contains much of interest to North American actuaries, including a review of major ways in which United Kingdom and North American actuaries differ in their approaches to valuing these plans.

The author observes that our profession's advice determines the amount that British industry takes from working capital and shareholders' funds to be set aside in pension funds, and thus actuaries greatly influence the national economy. The paper stresses the actuary's responsibility to ensure that employers neither be misled into thinking that their pension liability is less than is likely nor be encouraged to overprovide. The author mentions the importance of achieving stability of pension costs as a percentage of payroll and acknowledges the concerns of participants for benefit security, and of accountants for proper recognition of liabilities.

Operating in an environment of relatively little regulation, the U.K. pension actuary relishes this freedom but desires that the Institute give guidance to its members on acceptable practices. Indeed, one of the author's main recommendations is that the Council of the Institute act to discourage members from using one particular funding method, the "Discontinuance Target Method," in widespread use in the U.K. for insured pension plans, which, as he undertakes to demonstrate, results in lower contribution levels than do methods designed to produce stable contribution rates over a long period.

The Aggregate Method, used most commonly by consulting actuaries, has

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SS COMMISSION DISCUSSES NORMAL RETIREMENT AGE

by David M. Lipkin

(First of two articles. The second will report Robert J. Myers' role in these proceedings.)

At its June 21, 1982 meeting, the National Commission on Social Security Reform discussed whether continued mortality improvement justifies raising the normal retirement age.

Neither of two experts who appeared by invitation saw such justification. In the discussions that followed their presentations, Commission members appeared split over the issue.

The first authority, Dr. Jacob Feldman of the U.S. Department of Health and Human Services, addressed the question whether mortality improvement can be equated with more years of productivity; he reported from a recent survey that the proportion of men aged 50-69 who said they were unable to work in jobs for which they were suited increased in the 1970s even though male mortality decreased. He said that many whose lives were thus extended had been rescued from heart attacks, and thus included otherwise unhealthy or disabled lives. Furthermore, non-lethal disabling conditions, such as arthritis, wouldn't be expected to improve as mortality declines.

Noting that one reason why the better-educated show low disability rates is because they generally have less physically demanding jobs, Dr. Feldman expressed doubt that future better-educated generations will experience improved morbidity. Recent country-wide lifestyle changes, e.g., more exercise and less smoking, cannot, he said, be counted upon to expand productive lifetimes; any such gains may be offset by losses from alcohol and drug abuse.

Dr. Robert Butler, National Institute on Aging, echoing Dr. Feldman's doubts, proposed establishing a "health expectancy index" as a numerical measure. He said that many illnesses previously attributed to aging (hence incurable) are now being diagnosed as diseases (hence curable or preventable).

Yet, Dr. Butler seemed less settled in his mind than was Dr. Feldman on the issue; he believes that lifestyle changes may eventually improve morbidity, and he

reminded the Commission that surveys of people's perceptions and recollections are notoriously unreliable.

Commission Discussion

Much of the ensuing discussion concerned reasons why reported morbidity is increasing, the principal ones cited being:

1. Morbidity really is increasing.
2. Lower mortality is saving unhealthy lives.
3. The definition of disability is changing.
4. Diagnosis and reporting have become more accurate.
5. Large disability benefits and high unemployment are obscuring the facts.

When Dr. Feldman said that two-thirds of those aged 65-67 believed themselves fully able to work, one member asked if policy should be built for the two-thirds who can work, or for the one-third who cannot.

Executive Director Robert J. Myers explained the compromise between concern about cost and public desires that caused age 65, rather than 60 or 70, to be chosen initially as the earliest retirement age. One member believed that when the baby boom matures, a higher normal age may be needed to keep older workers in the labor force. Dr. Butler emphasized that individual choice of when to retire is desirable; this met with some members' approval.

Members who favored maintaining age 65 as the normal believed that a change would hurt those least able to afford it, while those favoring change stressed today's greatly increased life expectancy. One member's view is that Social Security's promise should be regarded as no more than keeping a constant ratio of retirement years to working years. But another considers that we are now presented with a demographic opportunity to get the system on to a sound financial footing. □

MAIL ALERT

During the summer you should have received your copy of the *Record*, Vol. 8, No. 1 covering the Houston meeting last April. If not, tell the Society office in Chicago.

Letters

(Continued from page 2)

History of Part I Passers

Sir:

Linden N. Cole's statistics and projections (June issue) warrant much further analysis. For example:

(1) How well, relatively, have students who got credit for Part I by the Graduate Record Exam route performed?

(2) What is happening to women, ethnic groups, etc.? Surely French Canadians cannot continue to supply their phenomenal 7% - 9% of all successful candidates and hope to find employment in Quebec.

(3) I hope the fundamental question whether rapid expansion, or even any expansion, in the number of actuaries is desirable, is being addressed.

(4) Finally, we should learn from the first horrendous (and wrong) economic projections of the Club of Rome, and not assume that this world is governed entirely by the exponential growth function. There is also the sine function; the pendulum will swing back.

Charles V. Schaller-Kelly

* * * *

Sir:

I wonder if trends are discernible in the percentages of Part I passers who will become Associates.

As an alumni admissions representative for my college, I have access to figures that show that even though the number of applicants has been shrinking, the percentage who are qualified and interested has grown. Perhaps the Society is about to experience such a condition.

There is of course the possibility that my alma mater has weakened its definition of "qualified". But they claim not to have, and my experience corroborates that claim.

Robert L. Whitney

* * * *

SOFASEX

Sir:

The folder in my desk, containing Society studies on discrimination and naturally labelled S OF A SEX, has prompted my secretary to ask why I keep so accessible a file that calls attention to my personal preferences.

Howard H. Kayton

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**PROGRESS REPORT:
PRE-1889 ACTUARIES**

An exciting array of reader responses has more than quadrupled our list of actuaries who practiced in North America too early in the nineteenth century to have become members of the Actuarial Society (see May issue, page 6). Though still incomplete, the roster now contains 59 names:

Francis B. Bacon	W. E. Harvey
Hugh C. Baker	John W. Hornor
Benjamin G. Balch	C. M. Hibbard
Stephen Ball	Edward Hsley
W. H. Beers	Benjamin Kendall
John Blackbridge	Benjamin D. Kennedy
Nathaniel I. Bowditch	George B. Lester
W. N. Bowers	Preston S. Lincoln
Joseph P. Bradley	James Weir Mason
W. A. Brewer, Jr.	Levi W. Meech
E. W. Bryant	Lewis Merrill
David Burke	I. J. Merritt
Charles Carpmael	Albert G. Milton
R. L. Case, Jr.	George L. Montague
Seth C. Chandler, Jr.	H. R. Morley
J. B. Cherriman	Carey Murdock
John E. Clark	Robert R. Pease
Osman D. Clark	Benjamin Peirce
W. J. Coffin	George W. Reed
N. G. De Groot	E. H. Sewell
Edward Dewey	Jacob Shoemaker
Amzi Dodd	Frederick Stancliffe
Ezekiel B. Elliott	Charles H. Stewart
John F. Entz	William P. Stewart
Pliny Freeman	John B. Thurston
David L. Gallup	A. M. Ward
Charles Gill	P. D. Whitmore
Leopold Goldman	Elizur Wright
Norman W. Harris	Lucy Jane Wright
Charles J. Harvey	

In some cases we lack enough particulars to be sure that the person's responsibilities warrant describing him as an actuary; in a number of others we have been given anecdotes easily worthy of inclusion in the historical essay that is in the works.

Please — those who have historical data but have not got around to writing — let us hear from you.

E.J.M.

THE OPENING PROPOSAL FOR ACTUARIAL NOTATION REFORM

by Frank G. Reynolds

(This is Article No. 2 in a series.)

Current reform negotiations have their origins in a paper presented to the 1968 International Congress of Actuaries by Boehm and Reichel in collaboration with nine other German-speaking actuaries. Its scope was vast as it undertook to give the rationale for a new system of notation, to develop a new International Actuarial Publication Language, to extend the notation to pensions and health insurance, and to provide a second computer-compatible language.

Paramount considerations were printability and compatibility with other mathematical fields. Accordingly, a linear, functional notation was offered. For symbols, it was proposed to use the 52 Latin letters, the lower case Greek letters, the ten Arabic numerals, and the fourteen common special characters.

The central letter of the present notation was to be retained. Modifying letters, such as "c" for continuous functions and "m" for insurances payable immediately on death (the "middle" of the policy year), could be appended.

Following the symbol were five blocks to be contained in brackets and separated by semi-colons:

- Block (i): Age(s) of the person(s) on whose survival payment depends.
- Block (ii): Information on
 - time of maturity
 - period of deferment
 - commencement ages
 - maximum duration
- Block (iii): Payment frequency, where appropriate.
- Block (iv): Interest rate.
- Block (v): Mortality table.

Thus, omitting the interest and mortality terms,

<i>Current</i>	<i>Proposed</i>
$\ddot{a}_{x:n}^{(4)}$	$\ddot{a}(x; x:n; 4)$
\ddot{a}_{xy}	$\ddot{a}(x; x:\omega) + \ddot{a}(y; y:\omega) - \ddot{a}(x, y; x:\omega, y:\omega)$
\bar{A}_x	$A_m(x; 0:\omega)$
${}_tV_x$	$V(A(x; 0:\omega), P(A(x; 0:\omega); \ddot{a}(x; x:\omega; t)))$

As can be seen, there was a considerable increase in volume, with, though, some increase in clarity for the beginner. A few shorthand rules were suggested for common cases.

For pension funds, the notation was to retain the same basic forms as for individual life functions but to use identifying letters for the six states—active, invalid, pensioner, widow, orphan, and full orphan. A sequence of these letters could be used when an individual goes through a series of states, e.g., the present value of a widow's pension for a person currently a pensioner would be $\ddot{a}rw(\)$. For sickness insurance, the notation called for identifying the claim frequency and cost by a basic symbol modified to identify the sources of claims.

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Actuarial Notation Reforms

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For the computer counterpart notation, the addition of letters P and T were used to translate a and \ddot{a} to upper case form. The stem was modified by a number or letter to identify each of the blocks in the printed notation. Lastly came the variables. Thus,

<i>Present</i>	<i>Proposed</i>
\ddot{a}_x	AT (X)
\bar{A}_x	AM (X)

Main objections were to the difficulty in reading the notation and the intermingling of letters and numbers. It was generally agreed that clarification and some fresh thinking were needed; the next few years proved fruitful. \square

THE E. & E. CORNER

Ques.: For how much longer should we expect Parts 5A and 5B to be separate exams?

Ans.: For all practical purposes, the Society now has eleven exams; in due course this will be made clear by renumbering.

This all began in 1980 when, to permit Part 4 to become also Part EA-1 (first exam for Enrolled Actuary in the U.S.), part of Life Contingencies was moved away to form the original Part 5A. Since then, the Risk Theory syllabus has been strengthened, and moved from Part 5B to 5A. And Part 5B itself has been evolving, with introduction of new texts.

Ques.: What does a grade 5 mean?*

Ans.: A grade of 5* means that the candidate did not meet minimum standards required for each subject, but otherwise would have achieved a passing grade for the entire exam. Meeting a minimum standard for each subject is a current requirement of Parts 3, 5A and 5B; this is noted in the Course of Reading.

Ques.: What should a student who observes apparent cheating during an examination do about this?

Ans.: The student should immediately inform the exam supervisor or proctor, who will take whatever steps are needed to prevent cheating from continuing, and will report the incident in confidence to the Society office. Anonymity of all concerned will be assured by use of candidate numbers, not names. \square

Letters

(Continued from page 3)

Ecclesiastes, 1:9*

Sir:

Five score and seven years ago, Simon Schreiber, who was the original force behind establishment of Pacific Mutual Life Insurance Company, developed and marketed a universal-life-type product. The company's history (1928) by C.I.D. Moore describes the event thus:

"Mr. Schreiber . . . conceived the idea of separating the life and endowment elements of premiums paid for insurance, and depositing the endowment element in banks, which with the interest accumulated, would at the death of the insured be paid to the beneficiary, in addition to the life insurance. The Pacific Mutual could not carry out such a plan, hence Mr. Schreiber created for that purpose an independent concern, known as the Trust Fund Insurance Association . . . The pure life element (was) turned over to the Pacific Mutual, which carried the risk, and the endowment element placed on deposit with (a trust company) organized primarily for the purpose of receiving such deposits."

Sad to relate, the trust company "fell on evil days and was disrupted with considerable loss to the depositors."

Dennis M. Corbett

*The thing that hath been, it is that which shall be;
and that which is done is that which shall be done:
and there is no new thing under the sun.

* * * *

Board of Governors

Sir:

I think I have the answer to Peter W. Plumley's problem of an unrepresentative Board (May issue). Let's have the Board consist of everybody in the Society, even though it may be difficult to find a large enough Board Room.

Failing this, I propose that rather than imposing more quotas for representation, we do away with those that we now (albeit gently) lay upon our electorate.

The Society needs at its helm qualified people willing and able to lead us through our challenges and opportunities. The way to have younger members on our Board is to encourage younger members to get involved in our activities.

Robert E. Hunstad

Ed. Note: See Edward S. Silins, "697 Volunteers", in this issue.

October Exam Seminars

Georgia State University will conduct the following:

Part 2	Part 5B
Part 3	Part 7E & EA-2
Part 4	Part 7I
Part 5A	Part 7(CAS)

Information from Prof. Robert W. Batten at his Yearbook address.

University of Waterloo will offer these:

Part 4	Part 7
Part 5A	Part 9
Part 5B	

Information from Prof. M. A. Bennett at his Yearbook address.

Registration Fee For Retired Members Halved

Members whose annual dues are waived under Article IX of the By-Laws may now attend our Spring and Annual Meetings at half the regular registration fee. This has been voted by the Board of Governors.

The Washington Meeting registration fee for these members will therefore be \$55, not the \$110 shown in the meeting announcement. Those who have already sent in \$110 will be refunded \$55 automatically.

Expenses and Management

(Continued from page 1)

These consist of unit expense factors to be applied to companies' annual statement figures to produce a tabular or base-year expense. In the formula used for the longest time, the Canadian Institute's Expense Committee reproduced the average expenses of the nine largest Canadian life companies in 1969. Out of perversity or delicacy the result was dubbed Formula 70. A company's actual expenses ratioed to the tabular, i.e., formula, expenses created an index similar to the CPI.

Later, the Committee divided companies into three size groups and found that the smaller companies operated at a lower expense level than the middle sized, while the large companies were lower than either group, a result since duplicated in some LIMRA studies of U.S. companies (Douglas J. Bennett, "Bigger May Be Better," *Best's Review*, December 1981). While results by size group are interesting, those by individual company are revealing to those who agree that expense levels measure managerial effectiveness.

The TN&W Index

Putting these asides aside, I will now describe a formula patterned after Formula 70 and derived from LOMA data of the era 1976-77. This not being a scientific paper, I won't describe the process beyond saying that unit expenses of twelve companies were studied and a relatively homogenous group of eight mutual companies was used to produce crude factors which were then applied to thirteen mutual companies and adjusted to reproduce essentially their then expense levels as a group. (This combined ratio was .995 in 1976 and 1.002 in 1977). Taking a leaf from the Canadian maple tree, I first called the result Formula 80. The Canadians one-upped me by coming out with a Formula 80 of their own so, like Joseph Heller when Mila 18 preempted the original title of *Catch 22*, I've retitled my effort the TN&W Index.

Like Formula 70 its chief virtue is that it reproduces the companies' total expenses as described, but from observation of companies I have worked with, I think its shape is right, for large companies anyway. The formula allowances are:

- A. 120% of first year premium
- B. 5% of renewal and single premiums
- C. \$50 per policy issued
- D. \$1 per thousand of new issues
- E. \$13 per policy in force at year end.

These factors are applied to direct business only, avoiding the distortions of reinsurance transactions. Some might argue for a small per thousand renewal expense factor, but would do so unsuccessfully with me. In any event, the formula's precision will not be defended; its utility will. Actuaries or controllers should feel free to adjust the formula so as to reproduce their own expenses as 100 in whatever base year they pick.

The expenses measured are commissions and general expenses (page 5, column (3), lines 21 and 22A of the U.S. annual statements). A case can be made for including line 23 (insurance taxes); in that event, factor B should be increased to 7%.

After that lengthy wind-up, here's the pitch. First, the mutuals for 1976, 1980 and 1981:

MUTUAL COMPANIES

Company	1976	1980	1981
A	93.6%	108.4%	104.4%
B	106.1	106.4	112.1
C	94.9	98.9	93.1
D	104.3	121.6	133.3
E	93.2	126.6	119.2
F	115.6	114.5	123.6
G	77.2	79.6	81.1
H	115.1	129.4	139.9
I	87.8	94.7	98.0
J	113.6	124.5	129.3
K	101.0	104.2	113.0
L	103.0	107.9	109.1
M	106.7	108.6	114.6
13 Company Total	99.5	104.5	106.9

The 13 companies as a group seem, superficially, to have held their own against inflation. Percentage items are, however, inflation-immune, and face amounts have more than kept up with inflation, which leaves only per policy expenses. For those, the implied inflation rate was 7.8% from 1977 to 1980 and 3.9% for 1977 to 1981. The 1981 rate was 12.4%.

The same formula applied to twelve large stock companies produced the following results for the last three years.

The two companies with the lowest index numbers are part of a multiple line operation; perhaps even more interesting, so are the three outstandingly high companies. Total index numbers are not shown because this group is a mixed bag and aggregates may not mean much.

STOCK COMPANIES

Company	1979	1980	1981
N	118.3%	121.9%	132.1%
O	81.5	81.7	71.7
P	113.5	124.2	132.4
Q	128.9	134.5	121.0
R	136.5	135.5	158.7
S	83.7	87.9	94.6
T	113.6	129.7	121.9
U	93.3	94.0	119.2
V	123.4	123.2	123.8
W	111.3	110.6	107.9
X	82.6	86.9	90.2
Y	72.6	77.3	73.0
Z	147.7	137.4	142.2

Actuaries seeking to crack my alphabetical code will be faced with a task similar to finding the mathematical progression for Lexington Avenue subway stops, the next term of which is "Astor Place". Since the underlying data are from public documents, anyone curious (about either company names or the Astor Place remark—Ed.) is invited to phone (212) 490-3460 for details.

A highly placed insurance executive was quoted recently in the *Wall Street Journal* as saying, "Expenses will be the battleground of the eighties." Yes, but where shall that battle be fought? Only about 20% of the total formula expenses are for issue and maintenance; the balance are related to premiums and are mostly sales expenses. Since the first law of expense control is, "Go after the big numbers," the battle will be fought over sales compensation. Some readers will recall a similar war among automobile insurance writers beginning in the fifties and sparked by one of the two low-index-number stock companies; in life insurance a similar beginning has been sparked by early entrants to the universal life field.

The correlation between new business and a good index number is obvious from the formula. Since expenses affect the product's price, we would expect high correlation between expenses and production, a conclusion supported by the fact that the auto companies referred

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Expenses and Management

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to have now passed the then largest such companies. I will not predict the same for life companies, but it's worth noting that they are not immune from the need cited earlier to improve manufacturing and distribution costs. It will be a test of management skills to bring that about; it is hoped that the index will reasonably measure the success achieved. Recent results suggest that some, such as Company O have managed their expenses (ergo their affairs, well, while Company H seems headed elsewhere in a handbasket. □

Pensions in U.K.

(Continued from page 1)

the merit of simplicity in producing a single contribution rate without separate normal cost and past service cost components, but the author notes that a separately calculated new entrant rate would usually be lower than the aggregate rate, and he acknowledges that the method produces a tapering of contribution rates over an extended period owing to the usual influx of new entrants. The method's inflexibility is another disadvantage; this makes its popularity in the U.K. surprising to North American actuaries.

In commenting on the principal U.S. methods, the author expresses puzzlement that, in inflationary conditions, supplemental liabilities not covered by normal contributions are funded in the U.S. by annual payments in constant dollars rather than as a level percentage of payroll, the prevailing U.K. practice; also the use of multiple amortization schedules for different items of unfunded supplemental liability is regarded in the U.K. as unnecessarily complicated. In discussing the Frozen Initial Liability Method the paper criticizes as actuarially unrealistic the concept of a uniquely determined frozen liability but acknowledges its accounting nicety.

The Discontinuance Target Method

The author presents a number of problems associated with the Discontinuance Target Method. This system, unfamiliar to many North American actuaries, takes into account future benefits over only a limited period, commonly twenty years; salary increases are projected only to the end of that period al-

though interest, at the valuation rate, is taken into account beyond that; common practice is to assume an influx of new entrants to maintain a stable membership during the limited period.

The general effect is to produce a contribution rate lower, often substantially so, than by more conventional methods. The method, widely used by life companies for insured pensions, has, says the author, "undoubtedly been sustained by the selling of schemes on initial outlay rather than yield on the underlying contract." The paper attacks the method as "undoubtedly the least satisfactory of all the methods described," and appeals for a strong lead from the Institute's Council to discourage its members from any association with it. Conceding that the Institute cannot insist that an employer fund at a certain rate, the author suggests that possible contributions at lower levels can be revealed provided the employer is told of the full potential cost on an actuarially acceptable method.

Valuation Assumptions

The paper also treats critically the much-favored U.K. concept of valuing assets as discounted values of future income, and states the author's strong preference for market values.

A common U.K. practice is to set assumptions implicitly so as to allow for future pension increases. Comments the author:

"In practice the actuary will probably compromise somewhere in the wide range between a low real rate and the current rate of interest . . . He may prefer to present the valuation as on a high rate of interest with a specific, related, pension increase rate. Tactically, however, the actuary may find it easier to have his views accepted if he uses a more moderate rate of interest and merely mentions that in times of high interest this will give some margin to augment pensions."

The author's closing plea is that actuaries freely admit the possibility of variation and make sure to show employers the nature and extent of their risk.

Ed. Note: FIASCO, July 1982, reports a packed house and plenty of controversy in the discussion of Mr. Colbran's paper. Readers may borrow copies of both the paper and the FIASCO article ("Retired Hurt") from any of the many Institute members on this side of the Atlantic. This newsletter welcomes discussions. □

New Fellows

(Continued from page 1)

high, if not unconscionable, commission levels." Few saw these failings as a challenge to pick up the gauntlet, as only 5 of the 160 cited marketing as their primary career interest. (14 and 16 respectively gave it as their second and third choice.)

A solicitation for opinions of the exams and the educational system resulted in a not-surprising deluge of comments, about half of which were favorable (or at least not unfavorable). Most of the criticisms centered on out-of-date study notes, emphasis on memorization, and the use of the exams as a tool to limit the size of the profession. Some questioned the statistical validity of the exams, i.e., whether the "best people" are passing. And finally, one helpful respondent enhanced our historical perspective by informing us that "the exams were harder when I used to be a student."

In response to "What are the most important characteristics for success (on the exams)?" amid the expected (persistence, discipline, technical ability), one lone respondent answered "Preparation H". □

Deaths

N. Douglas Campbell, F.S.A. 1939
John K. Dyer, Jr., F.S.A. 1946
Ralph E. Kennon, F.S.A. 1925
A. Ross Poyntz, A.S.A. 1935
George T. Prentice, F.S.A. 1928

Contributions to the Actuarial Education & Research Fund, 208 S. La Salle St., Chicago, IL 60604, in memory of a deceased member, are acknowledged to the donor and member's family. □

JORDAN BRAILED

The Iowa Commission For The Blind reports that they have completed braille *Life Contingencies*, and a student is using the product. The Commission is able to make a duplicate for somebody else, perhaps for less than \$100.

We would be pleased to put anybody wanting a copy into touch with the Commission. And we hope that the student who acquired that first copy will let us know how satisfactorily the book is fulfilling its purpose.

E.J.M.

NEW FELLOWS BY YEAR, 1889-1981

by James L. Cowen,
Director of Research

Compiling a year-by-year tally of new Fellows covering the 92 years of this Society and its two predecessor organizations takes more than just copying figures from a shelf of year books. Three operations that seem not to have been previously tackled are required, viz.,

(1) For the years 1909-1948, duplications between Fellowships in the Actuarial Society of America and the American Institute of Actuaries must be removed.

(2) For those same years, each Fellow must be assigned to the year of first achieving Fellowship in either organization.

(3) For the years 1946-1951 and 1964-1981, Fellows qualifying via the fall examinations must be allocated to the year in which that final exam was written. Inconsistency in this treatment down through the years has been a problem; we plan to remove it from now on by tabulating new Fellows (and Associates) separately for spring and fall exams in our Schedules of Membership.

It turns out that 5,332 individuals have qualified as Fellows, counting from the 38 charter members of April 1889 to the 179 who earned their Fellowships in the fall 1981 examinations. In this article, two tabulations are given. Table I lists the 898 who earned Fellowship in the former Society or American Institute, or of course in both, and shows also how many of each year's Fellows were still on the rolls when those two bodies merged on June 3, 1949. Table II traces the entrants to the present Society after it came into being.

Table I: New Fellows, 1889 to 1948

	Entered	On Roster 1949 (At Merger)
1889-1908	169*	14*
1909	46	12
1910	4	1
1911	5	1
1912	10	3
1913	12	7
1914	15	7
1915	10	9
1916	13	8

1917	13	11
1918	12	9
1919	14	12
1920	8	6
1921	14	11
1922	9	6
1923	10	10
1924	14	13
1925	24	22
1926	24	24
1927	21	17
1928	15	14
1929	23	22
1930	20	20
1931	19	19
1932	17	17
1933	19	18
1934	15	14
1935	20	18
1936	19	18
1937	17	15
1938	11	11
1939	20	19
1940	21	19
1941	19	19
1942	22	22
1943	17	17
1944	14	14
1945	23	23
1946	38	38
1947	35	35
1948	47	47
1889-1948	898	642

*Year-by-year figures for 1889-1908 are given in *T.A.S.A.* 50(1949), 67.

Table II: New Fellows, 1949 to 1981

1949	48	1966	122
1950	39	1967	113
1951	43	1968	129
1952	44	1969	142
1953	31	1970	143
1954	46	1971	160
1955	46	1972	150
1956	49	1973	160
1957	53	1974	148
1958	56	1975	220
1959	65	1976	394
1960	63	1977	336
1961	62	1978	314
1962	76	1979	279
1963	78	1980	412
1964	65	1981	266
1965	82		
		1949-1981	4,434
		1889-1948	898
		1889-1981	5,332

697 VOLUNTEERS!

by Edward S. Silins

Since volunteers are the Society's lifeblood, it is most encouraging to report that 548 Fellows and 149 Associates used the form that went to all our members last May inviting volunteers for work on one or more of 41 different committees. Thus we heard affirmatively from 12% of all Fellows and from 4% of Associates. Every one of the 41 listed committees received at least 5 names, the average being 37 names and the largest 98 names.

The average number of committees volunteered for was 2.2.

Here is a summary of responses by committee groups:

Education and Examination	292
Career Encouragement	134
Most popular by far was Relations with Schools (87). There were 20 interested in helping with Minority Recruiting.	
Services to Members	616
Pensions (98) and Computers (81) led this list.	
Professional Services	133
39 volunteered for Theory of Dividends; runner-up was Complaints & Discipline!	
Research and Studies	278
Mortality Studies on Ordinary Insurance and Annuities reaped 48 volunteers, while the corresponding committee for Group Life and Health drew 39. 37 chose Valuation.	
Publications	47
There were 12 replies each for the Committee on Papers and that for Review. The rest were evenly distributed among our three Editorial Boards.	

Before this article appears, all the names will have been sent to the heads of the respective Committees. Volunteers will appreciate that with so great a response, most committees won't be able to enjoy immediate benefit of all the willing hands. Don't be discouraged. □